

FIG. 1

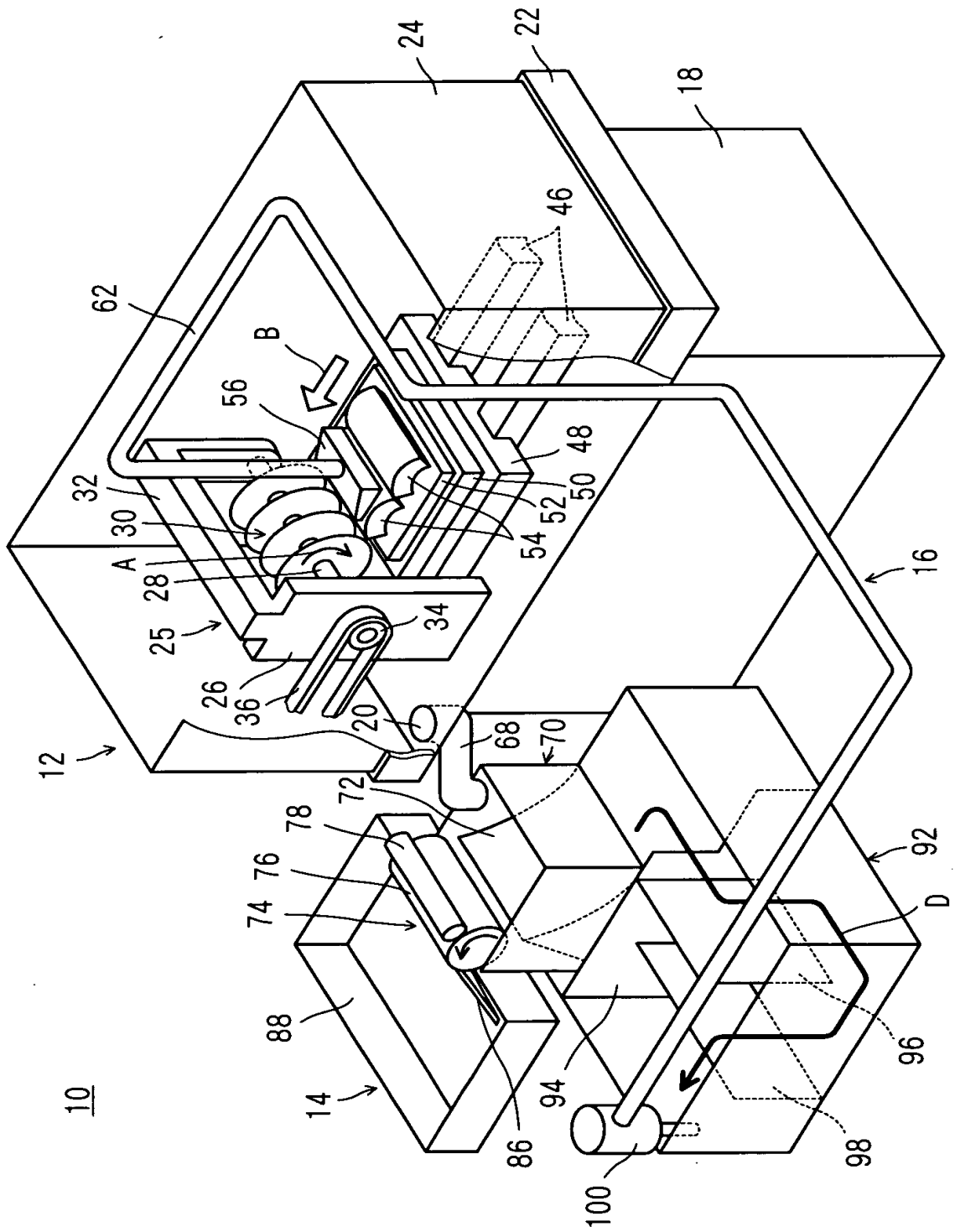


FIG. 2A

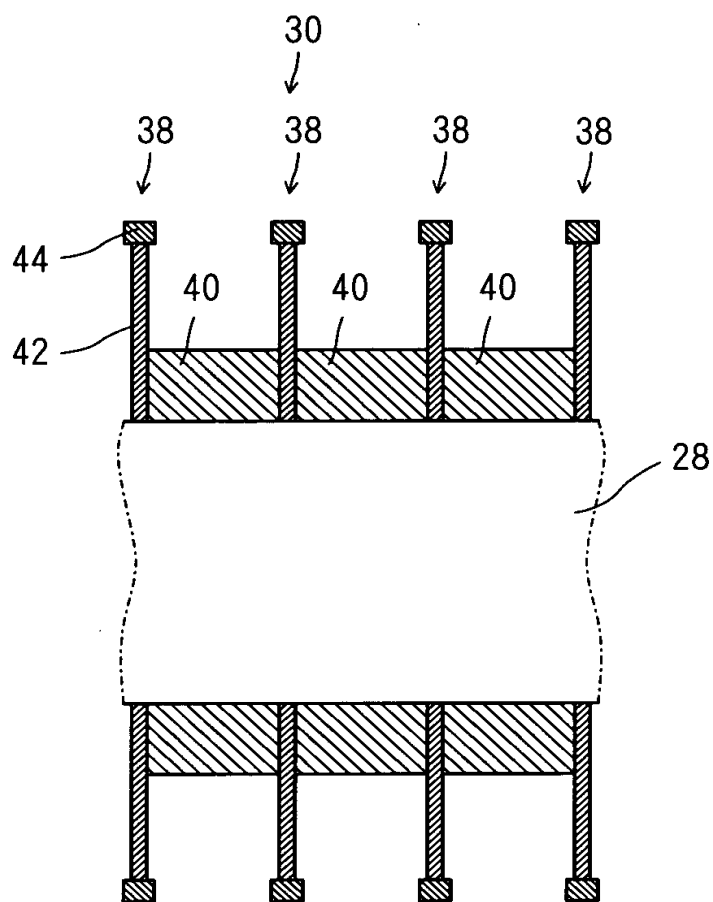
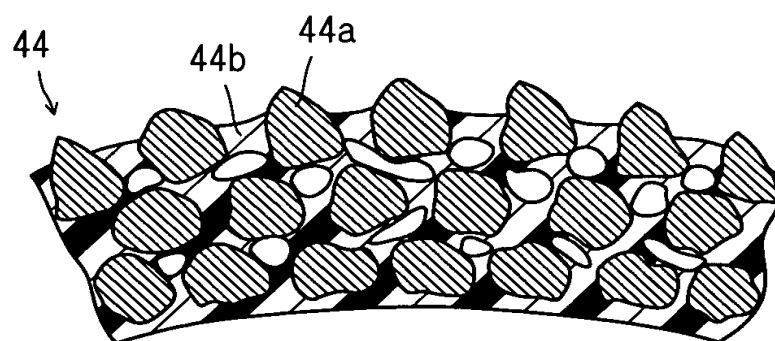
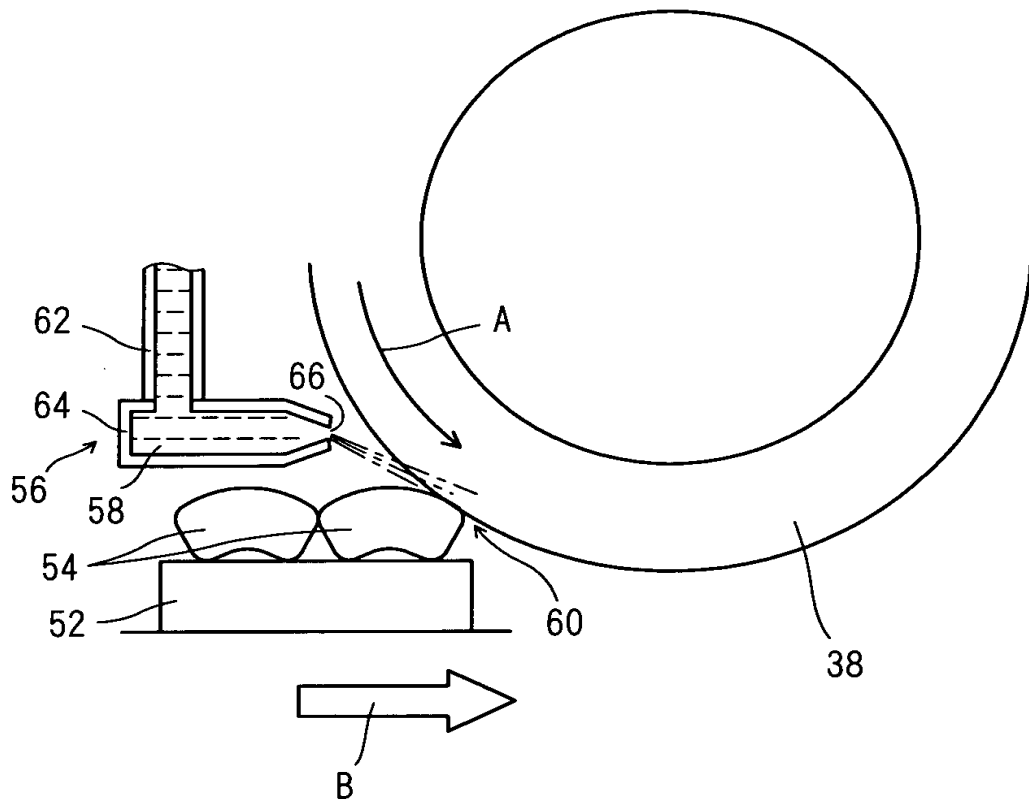


FIG. 2B



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FIG. 3



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FIG. 4A

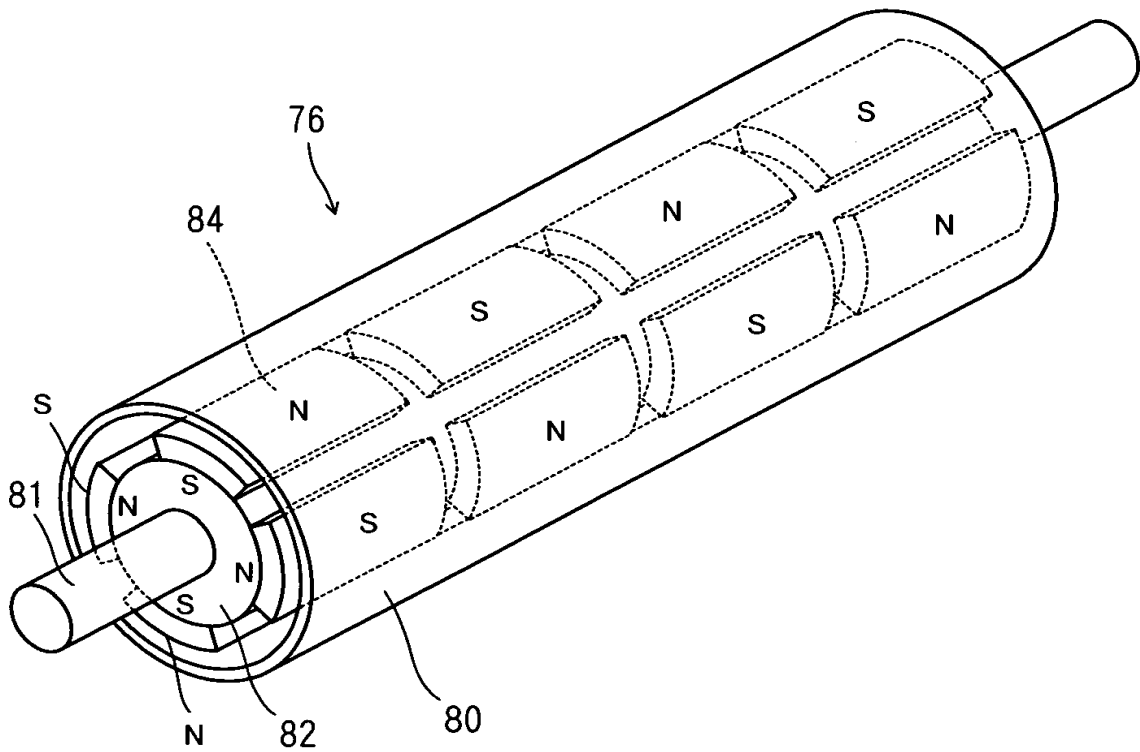


FIG. 4B

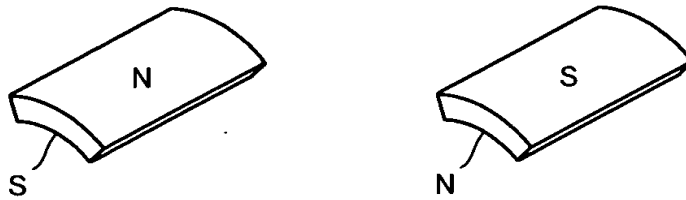
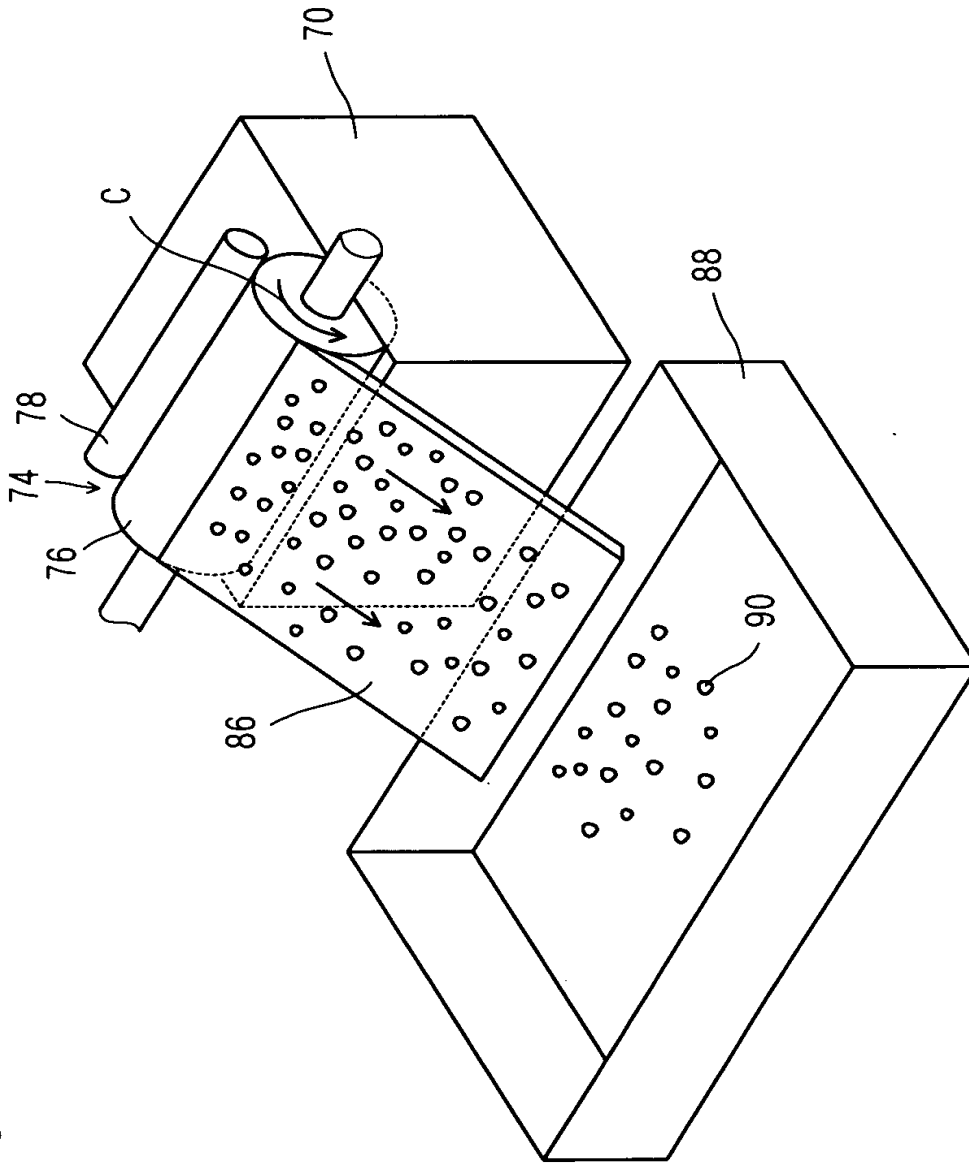


FIG. 5



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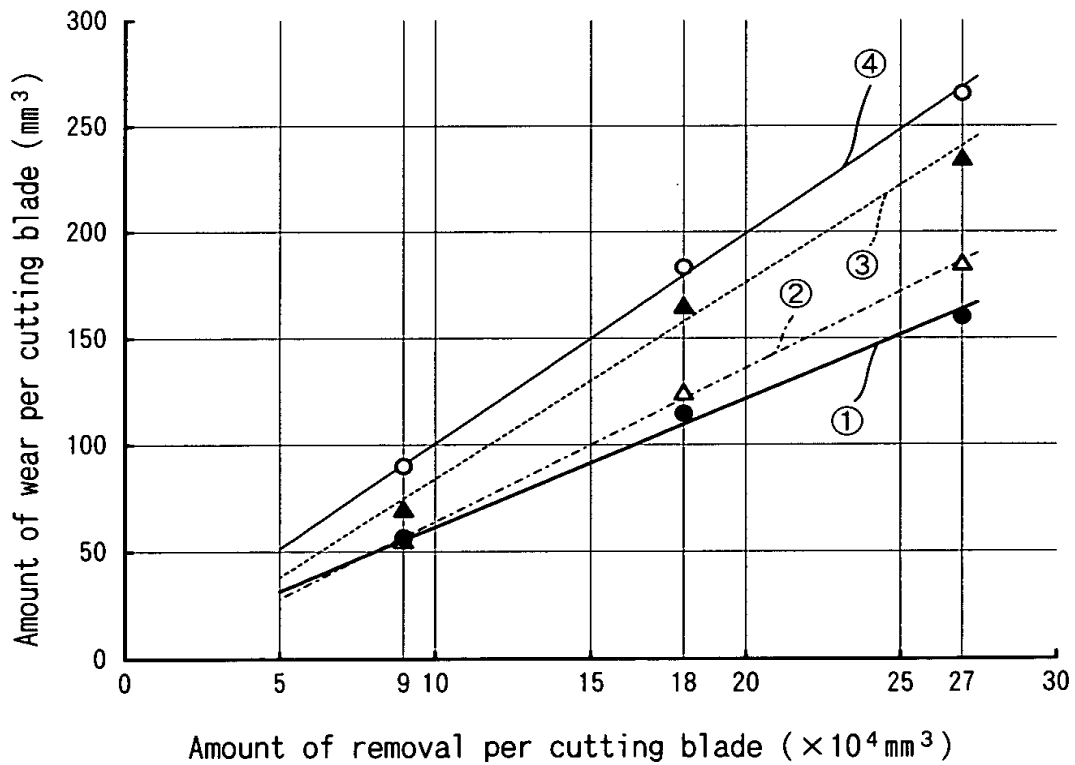
FIG. 6 A

Cutting Blade Wear

Removal by Machining ($\times 10^4 \text{ mm}^3$)		9	18	27
① Magnet separator : 0.3 T	Cutting Blade Wear (mm^3)	56	115	160
② Magnet separator : 0.25 T	Cutting Blade Wear (mm^3)	55	125	185
③ Magnet separator : 0.2 T	Cutting Blade Wear (mm^3)	70	165	235
④ No magnet separator	Cutting Blade Wear (mm^3)	90	183	265

FIG. 6 B

Relationships between Removal by Machining
and Cutting Blade Wear



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FIG. 7 A

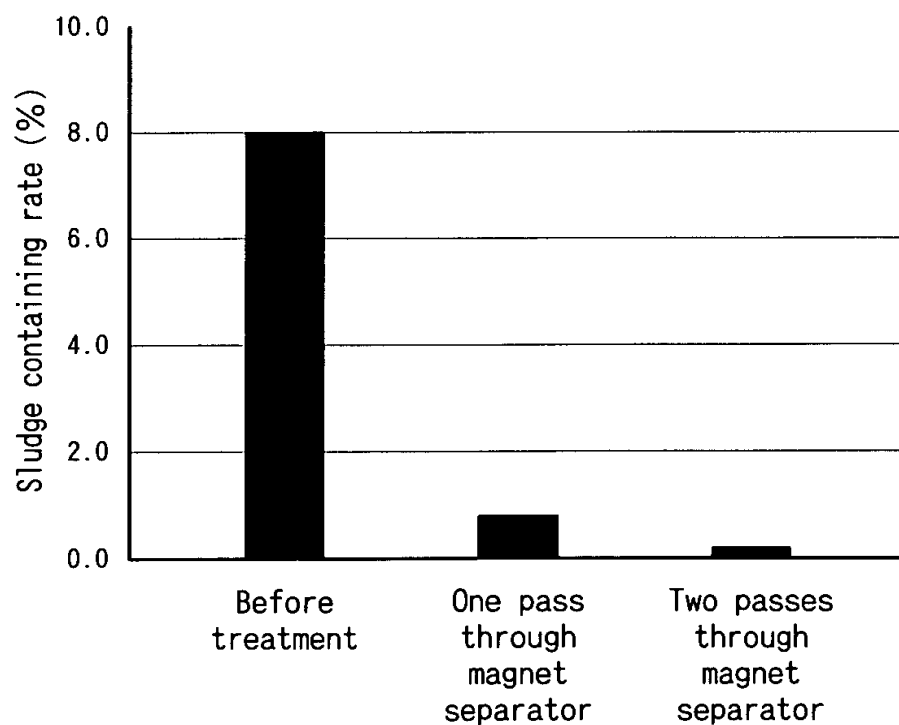
Magnet Separator Sludge Removing Ability

(per 500 cc of Grinding fluid)

		⑤	⑥
	Before treatment	One pass through magnet separator	Two passes through magnet separator
Volume of sediment (cc)	40	4	1
Sludge containing rate (%)	8.0	0.8	0.2

FIG. 7 B

Magnet Separator Sludge Removing Ability



F I G. 8 A

Sludge removal rate

	Surface magnetic flux density (T)	0	0.1	0.2	0.25	0.3	0.35
⑦	Magnet separator (without tank) sludge removal rate (%)	0	20	40	80	90	92
⑧	Magnet separator (with tank) sludge removal rate (%)	40	50	60	85	93	94

F I G. 8 B

Relationships between Magnet Roller Surface
Magnetic Flux Density and Sludge Removal